

Amendment and Response

Serial No.: 09/942,200

Confirmation No.: 8194

Filed: 29 August 2001

For: DIFFUSION BARRIER LAYERS AND METHODS OF FORMING SAME

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Remarks

The Office Action of 29 October 2003 has been received and reviewed. With claims 23, 27, 30, 32-34, and 37 having been amended, and claim 40 having been canceled, the pending claims are claims 23-39 and 41-49. Reconsideration and withdrawal of the rejection are respectfully requested for at least the reasons presented below.

Claim Amendments

The broadening amendments made herein are, Applicant submits, supported by the Declaration under 37 C.F.R. § 1.131 (the "Declaration") filed herewith.

The 35 U.S.C. §103 Rejection

Claims 23-49 were rejected under 35 U.S.C. §103(a) as being unpatentable over Dornfest et al. (U.S. Patent No. 6,358,810) in view of Smith et al. (U.S. Patent No. 5,149,596). While Applicant does not agree with the substance of the rejection (e.g., the Office Action has not identified, for example, the range of x recited in claims 24, 25, 36, 39, and 49), the rejection is rendered moot by the Declaration filed herewith.

The Declaration includes evidence that Applicant reduced at least the invention embodied in claims 23 and 37 to practice prior to the effective date of Dornfest et al. Applicant further submits that the claims that depend from claims 23 and 37, e.g., claims 24-26 and 41-44; and claims 38-39 and 45-49, respectively, were also reduced to practice prior to the effective date of Dornfest et al., or are species claims as further described below. For example, a platinum(x):ruthenium layer wherein x is within the range of values (or is equal to the value) recited in claims 24-25, 38-39, and 49 is shown in the Exhibits of the Declaration. Further, for example, the Declaration describes a barrier layer having a thickness within the ranges recited by claims 42-43 and 47-48, and further describes the silicon substrate and CVD process recited in claims 26 and 45, respectively.

Applicant submits that claim 23, directed to a semiconductor device structure, and claim 37, directed to an integrated circuit structure, are generic claims of the disclosed invention.

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Moreover, independent claim 27, which is directed to a capacitor structure, and independent claim 32, which is directed to a memory cell structure, are submitted to be species within the genus of claims 23 and 37, as are various other dependent claims including, for example, claims 41, 44, and 46. In view thereof, such claims are also deemed to have been reduced to practice.

In view of the evidence antedating Dornfest et al., Applicant requests reconsideration and withdrawal of the pending rejection.

Summary

It is submitted that pending claims 23-39 and 41-49 are in condition for allowance and notification to that effect is requested. The Examiner is invited to contact Applicants' Representatives, at the below-listed telephone number, if it is believed that prosecution of this application may be assisted thereby.

Respectfully submitted for
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29 Mar. 2004

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CERTIFICATE UNDER 37 CFR §1.8:

The undersigned hereby certifies that this paper is being transmitted by facsimile in accordance with 37 CFR §1.6(d) to the U.S. Patent and Trademark Office, addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 29th day of March, 2004 at 2:15pm (Central Time).

By: Julie O.Name: Julie Olan